

CLAIMS

1. A process for producing a lithium transition metal sulphide, the process
5 comprising reacting a transition metal sulphide with lithium sulphide in a solvent
comprising molten sulphur.
2. A process according to claim 1; wherein the transition metal sulphide is an iron,
molybdenum or titanium sulphide.
- 10 3. A process according to claim 2; wherein the transition metal sulphide is an iron
sulphide.
- 15 4. A process according to ~~any~~ one of the preceding claims further comprising the
step of recovering sulphur from ~~the~~ product.
5. A process according to claim 4; wherein the sulphur is recovered by dissolution
in a solvent.
- 20 6. A process according to claim 4; wherein the sulphur is recovered by
vapourisation.
7. A lithium transition ~~metal~~ sulphide obtainable by a process according to any
one of the preceding claims.
- 25 8. A battery comprising an electrode containing a lithium transition metal sulphide
according to claim 7.
9. The use of molten sulphur as a solvent in a chemical reaction for the production
30 of a sulphide.
10. The use according to claim 9; wherein the sulphide is a lithium transition metal
sulphide.

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